

**Work Order ID 99707**

April-11-13 2:53:42 PM.

**\*99707\***

Page 1

Item ID: D2037-101

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Arm

Start Date: 4/11/13

Start Qty: 8.00

**\*8\***

Cust Item ID:

Required Date: 4/11/13

Req'd Qty: 8.00

**\*8\***

Customer:

Reference:

Approvals:

Process Plan: MLSDate: 13-04-15 Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2037	D	0.00							
100	NC BRAKE	0.00							
<b>*100*</b>	Brake NC	0.00							
Brake NC	Memo								
	Punch as per Dwg D2037. Keep hole distance 45.50" using Jig D2037-101T1								
110	Small Fab	0.00							
<b>*110*</b>	Small Fab	0.00							
Small Fab	Memo								
	1-Drill Ø0.323" holes in D2037-101 tube as per Dwg D2037 ends of D2037-101 tube as required using DT8545 3-Deburr as required			2-Flatten					
120	QC5- Inspect part completeness to step on W/O	0.00							
<b>*120*</b>	QC	0.00							
Quality Control	Memo								

88  
13/05/1068x  
13/05/21DAS  
27  
BS 21

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

OA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other			
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved											
FAULT CATEGORY											
<b>Landing Gear</b> Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube				<b>General</b> Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish Folio		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset Out of Calibration Out of Sequence Outside Dimensions		Ovalized Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled  Other	

Work Order ID 99707

\*99707\*

Page 2

April-11-13 2:53:42 PM

Item ID: D2037-101

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Arm

Stop

\*NS2\*

Start Date: 4/11/13 Start Qty: 8.00

\*8\*

Cust Item ID:

Required Date: 4/11/13 Req'd Qty: 8.00

\*8\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> Packaging	Identify as per dwg & Stock Location: <u>W/A-001</u>	0.00							
	Memo	0.00				8		<u>02 13-5-22</u>	
140 <b>*140*</b> QC	QC21- Final Inspection - Work Order Release	0.00						<u>MLJ 13-05-23</u>	
Quality Control	Memo	0.00						<u>MF</u>	
								<u>13-5-22</u>	

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data	<input type="checkbox"/>											
Equip/Tooling	<input type="checkbox"/>											
Operator	<input type="checkbox"/>											
Material	<input type="checkbox"/>											
Setup	<input type="checkbox"/>											
Other	<input type="checkbox"/>											
Process	<input type="checkbox"/>											
Supplier	<input type="checkbox"/>											
Training	<input type="checkbox"/>											
Unapproved	<input type="checkbox"/>											
FAULT CATEGORY												
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled		
<input type="checkbox"/> Other												

**Picklist Print**

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Page 1

Work Order ID: 99707

Parent Item: D2037-101

Parent Item Name: Arm

Start Date: 4/11/13

Required Date: 4/11/13

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP Rev:A New Issue 05-11-01 JLM  
 IPP Rev:B 08-07-29 revD as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.750W.049 304 RD Tube .750 x .049W		Purchased	No			110	f	497.6735	3.916	32.976842			

Location	Loc Qty	Loc Code
MAT017	497.6734825	
122312	20.599	
122468	0.0000325	
124768	314.83665	
125068	162.2378	

8/13/05/06

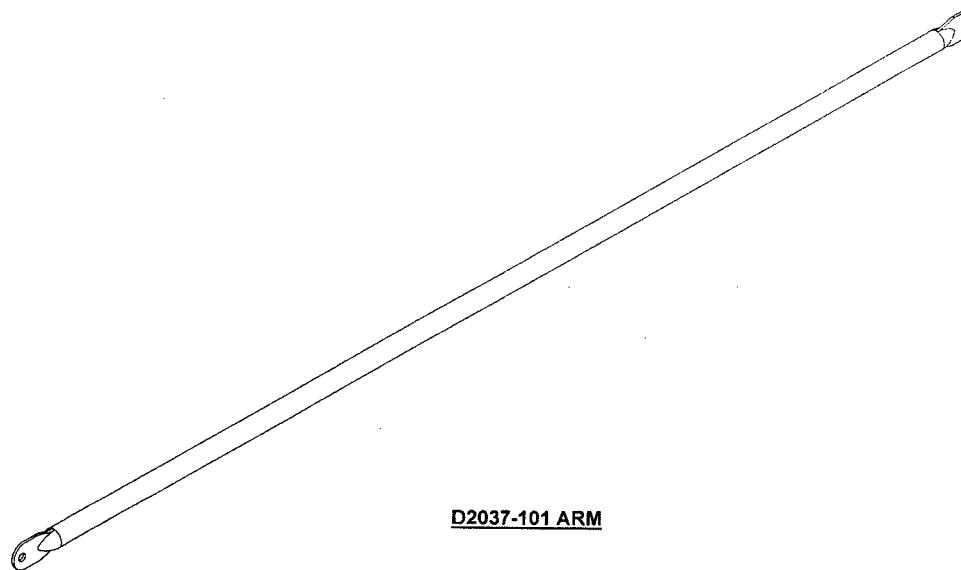
NCR: Yes / No

DQA: Date:

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS								
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process														
Supplier														
Training														
Unapproved														
FAULT CATEGORY														
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	
													<input type="checkbox"/> Other	



D2037-101 ARM

99707 MLJ  
13-04-15

R  
68-07-07 140

NOTES

- 1) MATERIAL: AISI 304/316, STAINLESS STEEL ROUND TUBE,  $\phi 0.750 \times 0.049$  WALL  
REF. DART SPEC M304TR0.750W.049
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.50 lbs
- 8) FOR FURTHER INFO SEE DRAWING D2638.

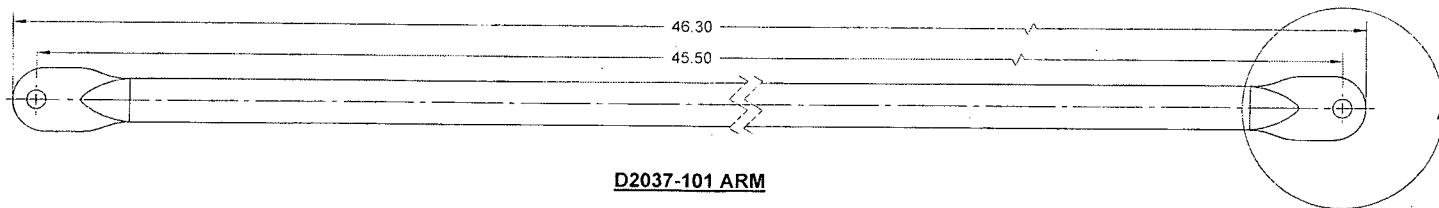
8 7 6 5 4 3 2 1

D	INCORPORATED C1,C2 & C3. REDRAWN TO SOLIDWORKS FORMAT WITH CURRENT STANDARDS. ORIGINAL "T" SUPPORT CONFIGURATION DELETED (SEE REV. C FOR FURTHER DETAIL). SHEET 2 DETAIL A NOW INDICATED AS 2. PL. REASON FOR CHANGE: QC/PRODUCTION REQUEST.	AJS	08.05.08
C	REDRAWN, 0.386 WAS 0.375.	RF	99.06.07
B	-103 DELETED	JB	93.04.20
A	NEW ISSUE	JB	91.10.22
REV.	DESCRIPTION	BY	DATE
DESIGN	JB	DART AEROSPACE LTD	
DRAWN	AJS	HAWKSLEY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D2037	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		ARM	NTS
DATE	08.05.08	COPYRIGHT © 1991 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

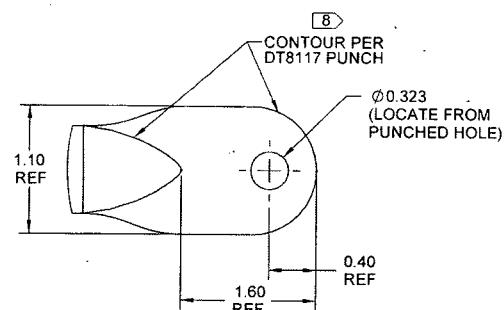
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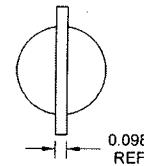
99707



D2037-101 ARM



DETAIL A  
SCALE 2X  
2 PL



RELEASER  
08-07-07 APD

DESIGN	JB	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	✓	DRAWING NO.	
MFG. APPR.	✓	D2037	REV. D
APPROVED	✓	SHEET 2 OF 2	
DE APPR.	✓	TITLE	SCALE
DATE	08.05.08	ARM	NTS

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8 7 6 5 4 3 2 1